

Amendments to the Claims:

Please amend claims 1, 7, 13, 14 and 20 and add new claims 21 and 22 as shown in the following listing of claims. This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A method of restricting symbol size in an ADSL system comprising:

obtaining a data rate during initialization;

comparing the data rate to a threshold;

~~transmitting~~ forming symbols using ~~one of~~ a multiple of 8, 4 or 2 a predetermined number of bits per symbol if the data rate is above the threshold; and

~~transmitting~~ allowing symbols to be formed using ~~an~~ any integer number of bits per symbol if the data rate is below the threshold.

2. (Previously presented) The method of claim 1 wherein the data rate is obtained from a remote location.

3. (Previously presented) The method of claim 1 wherein the data rate comprises an estimated maximum receive data rate.

4. (Previously presented) The method of claim 1 wherein the threshold is one of approximately 1 Mbits per second or approximately 250 Kbits per second, and wherein the symbols are transmitted using a multiple of 8 bits per symbol if the data rate is above the threshold.

5. (Previously presented) The method of claim 1 wherein the threshold is one of approximately 2 Mbits per second or approximately 500 Kbits per second, and wherein the symbols are transmitted using a multiple of 4 bits per symbol if the data rate is above the threshold.

6. (Previously presented) The method of claim 1 wherein the threshold is one of approximately 3 Mbits per second or approximately 750 Kbits per second, and wherein the symbols are transmitted using a multiple of 2 bits per symbol if the data rate is above the threshold.

7. (Currently amended) A method of restricting symbol size in an ADSL system comprising:

obtaining a data rate during initialization;

comparing the data rate to a threshold;

transmitting a message to choose a symbol size that is ~~one of~~ a multiple of 8, 4 or 2 a predetermined number of bits per symbol if the data rate is above the threshold; and

transmitting a message without restriction as to the size of symbols if the data rate is below the threshold.

8. (Previously presented) The method of claim 7 wherein the data rate is obtained from a remote location.

9. (Previously presented) The method of claim 7 wherein the data rate comprises an estimated maximum receive data rate.

10. (Previously presented) The method of claim 7 wherein the threshold is one of approximately 1 Mbits per second or approximately 250 Kbits per second, and wherein the message is transmitted to choose a symbol size that is a multiple of 8 if the data rate is above the threshold.

11. (Previously presented) The method of claim 7 wherein the threshold is one of approximately 2 Mbits per second or approximately 500 Kbits per second, and wherein the message is transmitted to choose a symbol size that is a multiple of 4 if the data rate is above the threshold.

12. (Previously presented) The method of claim 7 wherein the threshold is one of approximately 3 Mbits per second or approximately 750 Kbits per second, and wherein the message is transmitted to choose a symbol size that is a multiple of 2 if the data rate is above the threshold.

13. (Currently amended) An ADSL modem system comprising:
a first modem having a first transmitter and a first receiver; and
a second modem having a second transmitter and a second receiver, the second modem ~~estimating~~ operable to estimate a maximum receive data rate of the ~~first~~ second modem and ~~comparing~~ compare it to a threshold, the second transmitter transmitting a message to the first receiver that instructs the first transmitter to transmit data using a pre-selected number of bits per symbol ~~based on the comparison~~ if the maximum receive data rate is above the threshold, the second transmitter transmitting a message to the first receiver that instructs the first transmitter that it is free to transmit data using any integer number of bits per symbol if the maximum receive data rate is above the threshold.

14. (Currently amended) The ADSL modem system of claim 13 wherein the pre-selected number of bits per symbol is one of a multiple of 8, 4[,], or 2 or 1.

15. (Original) The ADSL modem system of claim 14 wherein the threshold is one of approximately 1 Mbits per second or approximately 250 Kbits per second, and wherein the pre-selected number of bits per symbol is 8 if the maximum receive data rate is above the threshold.

16. (Original) The ADSL modem system of claim 14 wherein the threshold is one of approximately 2 Mbits per second or approximately 500 Kbits per second, and wherein the pre-selected number of bits per symbol is 4 if the maximum receive data rate is above the threshold.

17. (Original) The ADSL modem system of claim 14 wherein the threshold is one of approximately 3 Mbits per second or approximately 750 Kbits per second, and wherein the pre-selected number of bits per symbol is 2 if the maximum receive data rate is above the threshold.

18. (Original) The ADSL modem system of claim 14 wherein the second receiver receives a training signal that is used to estimate the maximum receive data rate of the first modem.

19. (Original) The ADSL modem system of claim 14 wherein the second modem further has a manager that estimates the maximum receive data rate of the first modem and compares the estimated maximum receive data rate to the threshold.

20. (Currently amended) The ADSL modem of claim 14 wherein the first modem further has a manager that configures the first transmitter to transmit data using the pre-selected number of bits per symbol ~~based on the comparison~~ if the maximum receive data rate is above the threshold and that allows the first transmitter to transmit data using any interval number of bits per symbol if the maximum receive data rate is below the threshold.

21. (New) The method of claim 1 wherein the predetermined number is one of 8, 4 and 2.

22. (New) The method of claim 7 wherein the predetermined number is one of 8, 4 and 2.